

In the claims:

Claims 1-14 (Previously Cancelled).

15. (Currently Amended) A method for ~~detecting the presence~~ assessing the proximity of a spinal nerve adjacent the relative to a distal end of at least one probe or surgical tool being introduced towards a patient's spine, said spine having a generally anterior region, a generally posterior region opposite from said generally anterior region, and generally lateral regions extending between said generally anterior region and said generally posterior region, comprising:

(a) emitting a stimulus ~~pulse~~ signal from an electrode disposed on a probe or surgical tool as said probe or tool is introduced generally perpendicularly towards a generally lateral region of the patient's spine from a generally lateral direction;

(b) electromyographically monitoring muscles coupled to said spinal nerve to determine if a predetermined neuro-muscular response is elicited by ~~detecting neuro-muscular responses to the stimulus pulse signal in at least one of a plurality of spinal nerves; [[and]]~~

(c) determining the relative distance between said spinal nerve and said distal end of said probe or surgical tool based on the intensity level of said stimulus signal required to elicit said predetermined neuro-muscular response ~~concluding that the electrode disposed on the probe or surgical tool is positioned adjacent to a first spinal nerve when the neuro-muscular response detected in the first spinal nerve is detected as a current intensity level less than or equal to a neuro-muscular response signifying close proximity to the first spinal nerve; and~~

(d) communicating to an operator said intensity level of said stimulus signal required to elicit said predetermined neuro-muscular response.

16. (Currently Amended) The method of claim 15, wherein the stimulus ~~pulse~~ signal is emitted from an electrode disposed on the distal end of the at least one probe or surgical tool.

Claims 17-21. (Previously Cancelled).

22. (Currently Amended) The method of claim 15, wherein[[,]] detecting neuro-muscular responses to the stimulus pulse in each of the plurality of spinal nerves comprises: involves

detecting the neuro-muscular responses at a plurality of distally spaced apart myotome locations corresponding to each of a plurality of ~~[[the]]~~ spinal nerves.

23. (Currently Amended) The method of claim 15, further comprising:

repeating the method of claim 15~~[[,]]~~ while the ~~current~~ intensity level of the electrical stimulus ~~pulse~~ signal is varied over time.

24. (Currently Amended) The method of claim 23, wherein the ~~current~~ intensity level of the stimulus ~~pulse~~ signal is varied incrementally.

25. (Currently Amended) The method of at least one of claims 23 and 24, wherein the ~~current~~ intensity level of the stimulus ~~pulse~~ signal is increased over time.

26. (Currently Amended) The method of claim 15, wherein~~[[, the]]~~ said spinal nerve is one of a plurality of spinal nerves ~~comprise: nerves-exiting from successive vertebrae.~~

Claims 27-29 (Previously Cancelled).

30. (Currently Amended) The method of claim 15, wherein the method of claim ~~[[1]]~~ 15 is performed in a repeating sequence.

31. (Currently Amended) The method of claim ~~[[15]]~~ 30, wherein the method of claim ~~[[1]]~~ 15 is repeated automatically.

32. (Original) The method of claim 30, wherein the method of claim 15 is repeated under operator control.

33. (Currently Amended) The method of claim 15, ~~further comprising:~~ wherein communicating to said operator involves at least one of visually and audibly indicating to ~~[[an]]~~ said operator the

~~current~~ intensity level of the stimulus signal required to elicit said predetermined neuro-muscular response ~~pulse which elicits a in each of the plurality of spinal nerves.~~

34. (Currently Amended) The method of claim 33, further comprising:

repeating the method of claim 15, thereby detecting and measuring sequential sets of neuro-muscular responses for ~~each of the plurality of said~~ spinal nerve[[s]]; and

simultaneously visually displaying to an operator the measured levels of at least two sets of the neuro-muscular responses for ~~each of the plurality of said~~ spinal nerve[[s]].

35. (Currently Amended) The method of claim 15, further comprising:

visually indicating to [[an]] said operator that [[a]] said spinal nerve is positioned near the distal end of the at least one probe or surgical tool.

36. (Currently Amended) The method of claim 15, further comprising:

audibly indicating to [[an]] said operator that [[a]] said spinal nerve is positioned near the distal end of the at least one probe or surgical tool.

37. (Currently Amended) The method of claim 36, wherein audibly indicating to said operator ~~involves comprises:~~ sounding an alarm as the nerve is approached.

38. (Currently Amended) The method of claim 36, ~~further comprising:~~ wherein ~~varying~~ the volume of the alarm is varied as the nerve is approached.

39. (Currently Amended) The method of claim 37, ~~further comprising:~~ wherein ~~varying~~ the frequency of the alarm is varied as the nerve is approached.

40. (Currently Cancelled)

Claims 41-50 (Previously Cancelled).